TESTIMONY OF

MR. JOE SCORDINO

DEPUTY REGIONAL ADMINISTRATOR, NORTHWEST REGION

NATIONAL MARINE FISHERIES SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

U.S. DEPARTMENT OF COMMERCE

ON THE

ON THE MARINE MAMMAL PROTECTION ACT OF 1972

BEFORE THE

COMMITTEE ON RESOURCES

SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

U.S. HOUSE OF REPRESENTATIVES,

October 11, 2001

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify today. My name is Joe Scordino, and I am the Deputy Regional Administrator of the Northwest Region, National Marine Fisheries Service (NMFS) in the National Oceanic and Atmospheric Administration, Department of Commerce. Among many other aspects of conserving marine resources along the U.S. west coast, I have had an active role in marine mammal issues in the Northwest for more than 20 years. I was one of two principal authors of the *Report to Congress: Impacts of California Sea Lions and Pacific Harbor Seals on Salmonids and West Coast Ecosystems*, which was submitted to the Committee on Resources and the Committee on Commerce, Science and Transportation in February 1999.

In my testimony today, I will generally follow the format of the Report to Congress and will emphasize new information that has become available since the Report was completed. This new information is the result of a cooperative west coast pinniped research and monitoring effort by NMFS and the Pacific States Marine Fisheries Commission (PSMFC) that commenced in Fiscal Year 1998 with Congress increasing NMFS base funding specifically for studies on pinniped impacts on salmonids and West Coast ecosystems. The state fish and wildlife agencies in California, Oregon, and Washington as well as university and tribal entities participate in this cooperative program. Recent studies funded by the states, tribes, and academia as well as other funding sources such as the fishing industry and Saltonstall-Kennedy Grants have contributed to this cooperative program.

The coordinated state/federal coastwide program to study and monitor the effects of expanding populations of Pacific harbor seals and California sea lions on the west coast focuses on the following five areas:

- Pinniped effects on depressed salmon and steelhead populations
- Pinniped conflicts with commercial and recreational fisheries

- Non-lethal methods to mitigate pinniped conflicts with people and other resources
- Pinniped population assessments
- Other coastal ecosystem pinniped impacts.

Status of California Sea Lions and Pacific Harbor Seals in Washington, Oregon and California

Populations of California sea lions and Pacific harbor seals have increased at an annual rate of five to eight percent since the early 1970s concurrent with passage of the Marine Mammal Protection Act in 1972 (see Figures 1-4). Although some pinniped populations in the Pacific Ocean have declined and have been listed under the Endangered Species Act (e.g., Steller sea lions and Hawaiian Monk seals), the opposite has occurred with harbor seals and California sea lions off the west coast of Washington, Oregon and California. The expanding populations of these two species has caused concurrent increased reports of conflicts with fisheries, fishery resources (especially salmon), and human activities. Elephant seals on the west coast also have increased at about 8% per year, but their interaction issues are currently limited to human contact on coastal beaches. Thus, as requested in the 1994 Amendments to the MMPA, the Report to Congress and my testimony focus on expanding populations of California sea lions and Pacific harbor seals (collectively called "pinnipeds") in Washington, Oregon and California.

The Report summarized the status of California sea lions and Pacific harbor seals as healthy, robust populations -- their status has not changed. The recent NMFS Stock Assessment Report estimates the California sea lion population at over 200,000 animals in U.S. waters, the harbor seal populations in Washington and Oregon at over 42,000 seals, and the California harbor seal population at over 30,000 seals. Individuals from both species are increasingly found in inland waters and upriver in freshwater in many West Coast river systems.

The information available at the time the Report was completed indicated that despite current high abundance levels, there was insufficient evidence that either of these pinniped populations had reached its optimum sustainable population (OSP) level. Such a determination requires evidence that the affected population has exceeded its Maximum Net Productivity Level (MNPL), which is the lower limit of a population=s OSP. However, recent analyses by NMFS and State scientists on current abundance and life history parameters of harbor seals in Washington and Oregon indicate that these populations are experiencing the reduced rates of increase that accompany population levels exceeding MNPL (see Figures 1 and 2). These OSP determination manuscripts are currently under scientific peer review, and I expect NMFS will formally announce that these stocks as having reached their OSP as soon as the scientific papers are published.

The recent data history for harbor seals in California is not as clear as in Washington and Oregon because the last completed survey was in 1995. The last two survey efforts for harbor seals by the California Department of Fish and Game were incomplete, and did not result in abundance estimates. Although there is some preliminary evidence from continuous counts in portions of California that would indicate harbor seals are experiencing a reduced rate of increase, this evidence is not conclusive without complete data for the State. Therefore, I do not anticipate that an OSP determination can be made for this stock of harbor seals until we have several completed annual surveys.

California sea lions are continuing an increasing trend; the population growth data based on pup counts has not shown a reduced rate of increase which would indicate that the MNPL has been exceeded. As shown in Figure 4, pup production is affected dramatically by El NiZo events; pup counts decreased by 35% in 1983, 27% in 1992, and 64% in 1998. El NiZo events do cause declines in the California sea lion population, but do not appear to affect overall long-term increasing trends. NMFS scientists are examining other population and life history indices that may be used in an OSP determination for this species. Therefore, I do not

anticipate that an OSP determination will be made for California sea lions in the near term.

Pinniped Impacts on Salmon and Steelhead

Over the period that these pinniped populations have expanded, salmon and steelhead populations along the west coast have declined raising serious concerns about resource conflicts and impacts of pinnipeds on salmon listed under the Endangered Species Act (ESA). As noted in the Report to Congress, although seal and sea lion predation did not cause the decline of salmonids, it may be affecting the recovery of already depressed populations. Limited studies conducted prior to the Report to Congress showed that pinniped predation on small salmonid populations especially at areas of restricted fish passage, such as the California sea lion predation on a steelhead run that migrates through the Ballard Locks, can have negative impacts on the recovery of depressed or declining salmonids. The Report noted that there are many sites on the west coast where pinnipeds co-occur in estuaries and rivers with ESA listed salmon runs. As described earlier in my testimony, NMFS, PSMFC, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, and California Department of Fish and Game began a coordinated coastwide program in 1998 to investigate and evaluate potential pinniped impacts on ESA listed salmonids.

The cooperative state/federal program commenced with workshops to review and assess the sampling design and approach to 1) food habits studies that involve collecting pinniped scats at haul-out sites and determining diet from prey remains in the scat, and 2) surface observations from selected vantage points at sites where pinniped foraging and predation on salmonids could be observed. State/federal cooperators agreed to common protocols for data collection, analyses, and reporting to ensure consistency in studies at all sites coastwide.

Pinniped-salmon predation study sites include the lower Columbia River; Willamette Falls, OR; Rogue River, OR; Alsea Bay, OR; Umpqua River, OR; Ozette River, WA; Hood Canal, WA; Duamish River, WA; Ballard Locks, WA; Snohomish River, WA; Klamath River, CA; Eel River, CA; Madd River, CA; Smith River, CA; Scott Creek, CA; and San Lorenzo River, CA. In addition to field work, the cooperative program includes 1) captive pinniped studies to determine food passage rates so that data from scats can be quantified and extrapolated, and 2) laboratory studies on development of genetic identification of material in scats so salmon species/stocks can be determined. Initial reports from the first two years of studies are available from NMFS. Preliminary results from these studies indicate pinniped predation is definitely not having an impact on some salmonid runs (for example, studies have shown no pinniped predation on cutthroat trout in the Umpqua River) and may be impairing recovery in other areas (for example, pinniped predation rates exceeding 25 percent of spawning summer chum salmon in Hood Canal). Because of interannual variability, studies need to be conducted for at least three seasons in most areas before conclusive results are available. Some studies have been expanded to incorporate night vision technologies in an attempt to quantify the incidence of predation at night, so that a complete assessment of impacts can be made. Since night observations are limited and some sites have extensive reaches of river that cannot be observed, there will be some uncertainty in some of the predation estimates from some sites. Nonetheless, I expect that state/federal program will have completed salmonid predation assessments for many of the study sites within the next year.

Pinniped conflicts with commercial and recreational fisheries

Increasing California sea lion and Pacific harbor seal populations and their expanding distribution have resulted in increased reports of interactions with both commercial and recreational fisheries. Fishers are reporting economic impacts from the interactions. In the commercial fisheries, California sea lions and Pacific harbor seals remove catch and damage gear in the salmon troll and gillnet fisheries; nearshore gillnet fisheries; herring, squid, and bait purse seine and round-haul fisheries; and trap and live bait fisheries. Commercial fishers lose income because they are unable to catch, land, and sell fish. California sea lion interactions with salmon troll fisheries off California are especially severe. Recent studies showed that California sea lions took from eight percent to 28 percent of the hooked salmon in the salmon troll fishery

off Monterrey Bay from 1997 to 1999. Interaction rates were highest in 1998 during El NiZo conditions, when sea lions appeared to target fishing vessels due to lack of other prey resources.

Both California sea lions and Pacific harbor seals are involved in interactions with recreational fisheries coastwide, but most conflicts are attributable to California sea lions. Sea lions interact by consuming bait and chum, and removing hooked fish that are being reeled in. Fish also may stop feeding or may be scared away by the presence of sea lions. In addition, when sea lions are present, skippers frequently have to move their boats to other, sometimes less productive, fishing areas, incurring additional fuel costs and loss of fishing time. Despite these efforts, sea lions often follow the boats to these new locations. Interactions with the southern California partyboat fishery are reported to be especially severe. Recent studies by the California Department of Fish and Game and Moss Landing Marine Laboratory continue to substantiate the common occurrence of California sea lion interactions with Commercial Passenger Fishing Vessels in southern California and Monterrey areas.

Many fishers use an array of non-lethal deterrence measures to minimize or avoid interactions, but as noted in the Report to Congress, most of these measures have limited success an usually of short term duration. High powered acoustic devices have shown success in some limited areas such as at the Ballard Locks, but their applicability to fishing vessels and open ocean conditions limit their use. NMFS has worked with the fishing industry to develop a more powerful acoustic deterrence device, called Pulsed Power, that generates a high intensity pulse that could be effective in open waters. However, this device could affect other species and its testing has been constrained due to environmental concerns about such devices. More recent laboratory studies also indicate it may not be as effective in deterring California sea lions as initially hoped.

Recommendations in the Report to Congress

The 1999 Report is the result of a Congressional request that NMFS conduct a scientific investigation on the expanding populations of California sea lions and Pacific harbor seals off Washington, Oregon and California, and develop recommendations for addressing problems and issues identified as a result of the investigation. NMFS developed the recommendations in the Report with the assistance and concurrence of the Pacific States Marine Fisheries Commission, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife and California Department of Fish and Game. The Report includes specific recommendations to Congress for management measures to address pinniped (seal and sea lion) conflicts with salmon and human activities. The four recommendations are: 1) Implement site-specific management authority that would allow state and federal officials to lethally remove pinnipeds where necessary to protect ESA listed salmon and other marine resources; 2) Develop safe and effective non-lethal deterrent technologies; 3) Reconsider the prior MMPA authorization that allowed commercial fishers to lethally take pinnipeds as a last resort to protect their catch and gear in specific fishery areas where economic impacts are occurring; and 4) Implement the studies necessary to obtain additional information on the expanding pinniped populations and their impacts on other resources, especially ESA listed salmonids.

1. Implement Site Specific Management for California Sea Lions and Pacific Harbor Seals

The Report to Congress recommends a framework for site specific management measures, including lethal removal of pinnipeds, if and when necessary under specified circumstances, to address conflicts involving California sea lions and Pacific harbor seals on the west coast. The three components of the framework are:

1. In situations where California sea lions or Pacific harbor seals are preying on salmonids that are listed or are proposed or are candidates for listing under the ESA, immediate use of lethal removal by state or federal resource agency officials would be authorized.

2. In situations where California sea lions or Pacific harbor seals are preying on salmonid populations of concern or are impeding passage of these populations during migration as adults or smolts, lethal takes by state or federal resource agency officials would be authorized if (a) non-lethal deterrence methods are

underway and are not fully effective, or (b) non-lethal methods are not feasible in the particular situation or have proven ineffective in the past.

3. In situations where California sea lions or Pacific harbor seals conflict with human activities, such as at fishery sites and marinas, lethal removal by state or federal resource agency officials would be authorized after non-lethal deterrence has been ineffective.

The Report noted that a precautionary approach would favor the protection of ESA listed species (e.g., salmon) over absolute protection of healthy, robust and expanding pinniped populations. This recommendation includes a number of safe-guards to prevent unwarranted lethal takes of pinnipeds. Only in situations where pinnipeds are preying on ESA listed salmonids would lethal removal be authorized without considering non-lethal means first, and only in cases where such removal is within the context of salmon recovery actions. In all cases, lethal removal of pinnipeds is an action of last resort by state or federal resource managers. This recommendation only addresses the individual problem animals, which cause most of the conflicts; it is not intended to reduce or cull local pinniped populations. Additional details and specifics of this framework can be found in the Report. As described earlier in my testimony, recent studies have shown that the impacts of pinniped predation in some rivers are minimal (e.g., cutthroat in the Umpqua River) and would not warrant action, while in others the effects of pinniped predation will need to be considered in recovery planning (e.g., summer chum salmon in Hood Canal, WA).

2. Develop Safe, Effective Non-lethal Deterrents

At the time the Report was completed, only one avenue of deterrence technologies appeared to be promising for timely development of non-lethal techniques to deter marine mammals from interfering with human activities. This avenue was acoustic devices. Acoustic deterrents have been used with some degree of success in aquaculture operations and were applied with success in the confined area at the Ballard Locks in Seattle, WA to reduce predation on Lake Washington steelhead. I note, however, that non-lethal measures at Ballard Locks were not effective on California sea lions until NMFS had permanently removed three individually identifiable California sea lions that had frequented the area for many years.

Concurrent with preparation and since submission of the Report to Congress, NMFS supported research to test acoustic deterrents. For example, NMFS funded through the Saltonstall-Kennedy program the development and preliminary testing of a pulsed-power device for deterring sea lions from fishing boats. Field testing of this device has been postponed because of environmental concerns over its effect on non-target marine mammals and other species. There also is concern about routine use of these devices by the fishing fleet because large portions of ocean waters could be ensonified.

After research efforts indicated that acoustic technology would not provide a safe, effective approach to long-term deterrence of marine mammals, we were left with no alternatives for immediate development and application. Therefore, NMFS is currently supporting a new line of studies by Moss Landing Marine Laboratory to conduct basic behavioral studies on sea lions to determine what "cues" they use to find hooked fish. These studies would describe the "cues" involved in interactions with fishing operations and ways to possibly "mask" or eliminate those "cues" to avoid interactions. External sources (the Marine Mammal Center and fishing organizations) have expressed interest in supporting part of this research.

3. Consider Selectively Reinstating Authority for the Intentional Lethal Taking of California Sea Lions and Pacific Harbor Seals by Commercial Fishers to Protect Gear and Catch

This recommendation is for Congress to reconsider authorizing the use of intentional lethal taking of California sea lions and Pacific harbor seals until such time as effective non-lethal methods are developed for specific fishery conflict situations. Prior to the 1994 amendments to the MMPA, commercial fishers were allowed to kill certain pinnipeds as a last resort to protect their catch or gear. This recommendation was included in the Report following consultation with PSMFC in response to requests from some parts of the

fishing industry. This recommendation was predicated on optimism that effective non-lethal deterrents would be developed in the short term thus negating the need for fishers to use lethal means to eliminate interactions. However, as noted above, it does not appear that environmentally sound and effective deterrence methodologies are likely in the near term. This recommendation was the subject of most negative comments from the public, but it remained in the Report so that Congress would have background information if it chose to reconsider the 1994 amendments that eliminated the prior authorization that allowed commercial fishers to kill marine mammals as a last resort. Following the submission of the Report, NMFS has learned that many participants in current commercial and recreational fisheries do not necessarily desire to have this authority. Rather, these parties have expressed the need to have safe, effective non-lethal deterrents. Consequently, NMFS no longer supports this recommendation.

4. Information Needs

With Congressional action to increase NMFS base funding in fiscal year 1998 for studies on pinniped impacts on salmonids and West Coast ecosystems, this recommendation is being addressed. The cooperative state/federal program is collecting the information specified in the Report and state and federal managers are using the data for management.

Conclusion

Mr. Chairman, as Bill Hogarth noted earlier today, the Administration is currently developing a proposal to reauthorize the MMPA. The Report to Congress that I have discussed will be included in its considerations. Again, I appreciate the opportunity to testify today and would be pleased to answer any questions you or other members of the Subcommittee may have.